NATIONAL PARK SERVICE

BENEFITS-SHARING FOR CONSERVATION?

June 25, 2001 Environmental Assessment Scoping Newsletter

National Park Service to Evaluate Sharing Benefits from Research

The National Park Service (NPS) is beginning a process to evaluate the environmental impacts of implementing benefits-sharing agreements with scientists who conduct research in the national parks. This public scoping newsletter is the first step in this process as we seek your ideas and concerns related to benefits-sharing agreements.

Currently, the NPS facilitates research in the parks, yet if an approved research project results in a valuable discovery, no direct benefits are returned to the parks. Several laws allow agreements that return benefits to the parks if research leads to commercial successes.

Tomorrow, for instance, a researcher might discover something in a Carlsbad Caverns National Park organism that leads to the development of a new cancer-fighting drug, generating enormous economic benefits. Even though the research was based on publicly owned resources conserved by the park, Carlsbad Caverns National Park would receive nothing to better protect those resources. A benefits-sharing agreement would allow Carlsbad Caverns to receive, among other things, scientific training, technical information, and revenues on behalf of the public interest if profits result from the research.

To help us analyze the potential environmental impacts of this proposal, we are preparing an NPS-wide environmental assessment (EA), which will apply to all 384 units of the National Park System. This process includes opportunity for public dialogue and comment related to benefits-sharing agreements. Your comments about the issues and impacts that should be addressed in this EA are essential to this process.

What's an EA?

Environmental Assessments help the NPS determine if projects could have significant impacts to the parks. "Scoping" is the first step in an EA, when we invite the public to comment on the issues and impacts the project may have.

What is Benefits-Sharing?

Usually, "benefits-sharing" refers to agreements between biodiversity prospectors (sometimes called bioprospectors) and the National Park Service that return benefits to the park when the results of cooperative research lead to the development of something that is commercially valuable. The National Parks Omnibus Management Act of 1998 authorizes NPS to negotiate benefits-sharing agreements with scientists.

In 1995, Yellowstone National Park began to look for a way that benefits-sharing might work. Park managers concluded that Cooperative Research and Development Agreements (CRADAs) under the Federal Technology Transfer Act would be one of several legal and appropriate ways to implement benefits-sharing agreements and enhance resource conservation. CRADAs include a commitment by a non-federal scientist

or company to share reasonable benefits with the park. Benefits may take many forms (see page three).

Many other federal agencies routinely use CRADAs for collaborative research projects with other scientists. For instance, the National Institutes of Health and the Department of Energy, both federal agencies, are engaged in hundreds of active CRADAs in an effort to develop new medicines and energy technologies. In April 2000, a federal judge upheld the use of CRADAs in Yellowstone.

The National Parks Omnibus Management Act (P.L. 105-391) of 1998 states that "*The Secretary [of the Interior] may enter into negotiations with the research community and private industry for equitable, efficient benefits-sharing arrangements.*"

An Example of When Benefits-Sharing Might be Used...

In recent years, scientists conducting research in Yellowstone National Park have made a number of discoveries that were later found to have commercial applications. For example, an enzyme known as xylanase was discovered by a bioprospector in a Yellowstone hot spring microorganism. A method of producing quantities of this enzyme was devised in a lab. Adding xylanase to paper pulp can decrease the need for bleach by as much as 25%, significantly reducing the amount of environmentally hazardous byproducts and cutting production costs. Other more common xylanase enzymes are largely destroyed in the heat of the paper-making process, but the xylanase derived from a microorganism living in Yellowstone's thermal areas, and re-created in the laboratory, can withstand heat.

This example illustrates how information discovered during research on a Yellowstone microorganism could be put to work for a commercial purpose. Federal regulations prohibit research specimens collected from the parks to be sold or commercially used. Thus, only information and inventions developed after the conclusion of research specimen collection and analysis may be used commercially – not the specimens collected from the park.

This EA will evaluate the environmental impacts of several different ways of managing benefits-sharing agreements (including not using benefits-sharing). Benefits-sharing, if implemented, would apply if a scientist's results from park-dependent research are commercially valuable.

A Place for Science

As directed by law, policy, and longstanding practice, the National Park Service will continue to encourage and support the use of the parks as places for science. Scientific research permits may be issued to qualified representatives of federal, tribal, state, and local governments; educational and scientific institutions; organizations; individuals; and students to conduct scientific research in national parks.

The Secretary of the Interior is "*authorized and directed to assure that management of units of the National Park System is enhanced by the availability and utilization of a broad program of the highest quality science and information*" (P.L. 105-391).

Regulations governing these permits provide that the research project may be authorized *only if it is appropriate* in a national park. By law, appropriate projects must not impair natural or cultural resources or visitor use and enjoyment of the park. Only benefits-sharing agreements themselves are under review in this EA. We are not seeking comments in this EA on the regulations governing the longstanding practice of granting research permits.

What Might the Parks Receive?

Tangible provisions of benefits-sharing agreements could take many forms. Here are just a few:

- Scientific expertise to address park resource management issues.
- Specialized laboratory analyses in cooperation with park scientists.
- Education for park staff and the public, through seminars, classes, publications, etc.
- Scientific equipment for park laboratories.
- Field equipment to monitor park resources.
- Opportunities to receive royalties if research leads to commercial success.
- Increased appreciation and protection of resources.
- Training for park staff in new scientific techniques.
- More detailed information vital to the protection of park resources.

How Can I Get Involved?

This environmental assessment will help the NPS analyze the environmental consequences of instituting benefits-sharing agreements. The EA will present a range of viable alternatives related to benefits-sharing agreements, including not using benefits-sharing agreements at all. Once an EA is prepared and alternatives identified, we will ask for public comments again.

We are seeking your comments on:

- The issues to be addressed in this EA.
- The potential impacts of using or not using benefits-sharing agreements.

The EA will address:

- The environmental impacts if benefits-sharing agreements are or are not implemented by the NPS.
- The form benefits-sharing arrangements might take and how they might be implemented.

Send your comments by August 10, 2001, to:

National Park Service
Benefits-Sharing Team
P.O. Box 168
Yellowstone NP, WY 82190

Or email them to:

BenefitsEA@nps.gov

Anticipated Timeline

- June 25, 2001: Scoping begins
- August 10, 2001: Scoping ends
- Fall 2001: EA released for public review and comment
- Winter 2001/2002: Decision reached

Visit us on the web!
www.nature.nps.gov/benefitssharing

Individuals making comments may request that we hold their home address from public disclosure, which we will honor to the extent allowable by law. There also may be circumstances in which we would withhold a respondent's identity as allowable by law. If you wish us to withhold your name and/or address from public disclosure, you must make this specific request prominently at the beginning of your comment(s). We will make all submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Your comments needed by August 10, 2001!

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The National Park Service Mission:

"The National Park Service preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations."

Science in the Parks:

"The Secretary may solicit, receive, and consider requests from Federal or non-Federal public or private agencies, organizations, individuals, or other entities for the use of any unit of the National Park System for purposes of scientific study."